

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [07] on p. 2 as follows:

--[07] The disclosed ~~devices~~ ~~devices~~ and methods can provide ~~signifeant~~ significant advantages over the existing art. In certain embodiments, a tubule may be prepackaged with reagents for a desired sample processing protocol, thereby providing the materials for an entire assay in one convenient package. In certain embodiments, waste products are segregated from a target of interest early in the processing, so that the processed sample does not come into contact with surfaces that have been touched by the unprocessed sample. Consequently, trace amounts of reaction inhibitors present in the unprocessed sample that might coat the walls of the tubule are less likely to contaminate the processed sample.--

Please amend paragraph [09] on p. 3 as follows:

--[09] FIG. 2A is a cross sectional view of a sample tube including a tubule. FIG. 2B is a perspective view of another exemplary ~~embodiment~~ embodiment of a sample tube.--

Please amend paragraph [19] starting on p. 4 as follows:

--[19] The apparatus may include a transparent flexible tubule **10 (FIGS. 1A-B, FIGS. 2A-B, and FIGS. 3A-B)** capable of being configured into a plurality of segments, such as **16, 110, 120, 130, 140, 150, 160, 170, 180, and/or 190**, and being substantially flattened by compression. In an embodiment, a tubule may have at least two segments. In an embodiment, a tubule may have at least three segments. The flexible tubule can provide operational functionality between approximately 2°C and 105°C, compatibility with samples, targets and reagents, low gas permeability, minimal fluorescence properties, and/or resilience during repeated compression and flexure cycles. The tubule may be made of a variety of materials, examples of which include but are not limited to: polyolefins such as polypropylene or ~~polyethylene~~, ~~polyethylene~~, polyurethane, polyolefin co-polymers and/or other materials providing suitable characteristics. The tubule properties, such as transparency, wetting properties, surface smoothness, surface

charge and thermal resilience, may affect the performance of the tubule. These properties may be improved through such exemplary processes as: seeding, plasma treating, addition of additives, and irradiation. In some embodiments, an additive material may be added to the plastic to improve selected characteristics. For example, a slip additive may be added, such as erucamide and/or oleamide; in some embodiment, a so-called “anti-block” additive may be added. An additive may have a concentration in the plastic in the range from about 0.01% to about 5.0%.--

Please amend paragraph [29], beginning on p. 8, as follows:

--[29] The substrate can be: beads, pads, filters, sheets, and/or a portion of tubule wall surface or a collection tool. In embodiments where the substrate is a plurality of beads, said beads can be: silica beads, magnetic beads, silica magnetic beads, glass beads, nitrocellulose colloid beads, and magnetized nitrocellulose colloid beads. In some embodiments where the beads can be paramagnetic, the beads can be captured by a magnetic field. Examples of reagents that may permit the selective adsorption of nucleic acid molecules to a functional group-coated surface are ~~described, described~~, for example, in U.S. Patent Nos. 5,705,628; 5,898,071; and 6,534,262, hereby incorporated herein by reference. Separation can be accomplished by manipulating the ionic strength and polyalkylene glycol concentration of the solution to selectively precipitate, and reversibly adsorb, the nucleic acids to a solid phase surface.--

Please amend paragraph [128] on p. 43 as follows:

--[128] 3. *Nucleic Acid Elution*. The elution buffer **230** may then be moved from segment **130** to **110** by using a similar process as mentioned before. The cotton-based matrix can be incubated at 95°C under stationary, flow~~[[flo w]]~~ or agitation conditions for 2 minutes. The eluate can then be moved to segment **130**. The actuator **332** can compress segment **130** to adjust the volume of the eluted nucleic acid solution to 50 µl and clamp **330** can then close against the tubule to complete the DNA extraction process.--